

**REMARKS**

Reconsideration and withdrawal of the rejections of the claims set forth in the Official Action of May 18, 2005, is respectfully requested in view of the following remarks.

Claims 38-41 have been added. Claim 38 recites, *inter alia*, receiving, from the wireless receiver, a request to receive the real-time broadcast in a second subnet while configuring an address in said second subnet so as to move the real-time broadcast from the first subnet to the second subnet. This claim is supported by the specification on p. 47, lines 10-18, and thus no new matter is added by the addition of claim 38.

**Status of the Claims**

Claims 1, 3-22 and 24-26, 28-37 are currently pending.

Claims 1, 9-12, 21-25, 27-28, 31-32, 34 and 36-37 were rejected under 35 U.S.C. § 102(e).

Claims 3-8, 13-16, 19-21, 26, 29-30 and 33 were rejected under 35 U.S.C. § 103(a).

Claims 17, 22, 28-30 and 35 have been amended.

Claim 27 has been canceled.

Claims 38-41 are new.

**Rejections under 35 U.S.C. § 102**

Claims 1, 9-12, 21-25, 31-32, 34 and 36-37 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,741,575 to Zhang et al. ("Zhang"). Applicants respectfully traverse this rejection.

Claim 1 of the present invention recites, *inter alia*, associating at least one local multicast channel with at least one global multicast channel. The association of at least one local multicast channel with at least one global multicast channel enables a broadcast to be routed from the global multicast channel to the local multicast channel and then to a receiver, as further recited in claim 1 of the present invention. Because claim 1 of the present invention routes a broadcast to receivers through the local multicast channels, there is no need to identify individual cells in which a receiver resides.

Zhang fails to disclose any such broadcast arrangement. Instead, Zhang requires that the multicast transmission target specific and unique subscriber units. (Zhang, col. 12, lines 7-9). Zhang requires that the addresses listed in the multicast mapping table be identified by cell number. (Zhang, col. 12, lines 57-59). Requiring an identification by cell number is further evidenced by Zhang's use of m-LPTID in the address. (Id.). Because each cell can only have 238 m-LPTIDs, Zhang discloses reusing m-LPTIDs and thus distinguishing the addresses through the use of a cell number within the address. (Zhang, col. 12, lines 39-51). The multicast packet in Zhang is routed to cells by using the cell identifier for all members that subscribe to a particular group. (Zhang, col. 13, lines 3-6). Zhang does not disclose or suggest routing to a local multicast address as claimed in the present invention.

Further, the "broadcast" method as described in Zhang (See Zhang, col. 13, lines 58-62), does not utilize local multicast address routing as recited in claim 1 of the present invention. Instead, the broadcast method disclosed in Zhang requires data to be carried to every subscriber unit within a cell, requiring each unit to filter out packets from uninterested groups. (Zhang, col. 11, lines 59-62). Zhang does not route to a local multicast address as claimed in the present invention. Thus, Zhang does not disclose or suggest association of at least one local

multicast channel with at least one global multicast channel, nor does Zhang disclose routing a broadcast from at least one global multicast channel to at least one local multicast channel to provide the broadcast to the receiver, as recited in claim 1 of the present invention.

Claims 9-12 depend from claim 1, and should be patentable for at least those reasons recited above. Thus, the rejection of claims 1 and 9-12 under 35 U.S.C. § 102(e) should be withdrawn.

Claim 22 has been amended to include the step of, *inter alia*, receiving, from the wireless receiver prior to leaving the first subnet, a request to receive the real-time broadcast in a second subnet so as to move the real-time broadcast from the first subnet to the second subnet. This allows for a proactive approach when a receiver enters a new cell, and provides the same broadcast stream without interruption. Zhang does not send a request prior to leaving a current subnet. Instead, Zhang discloses sending a hand-off request after the subscriber unit crosses the cell boundary, or after the subscriber unit detects degradation. (Zhang, col. 9, lines 30-40). Because Zhang does not disclose or suggest receiving, from the wireless receiver prior to leaving the first subnet, a request to receive the real-time broadcast in a second subnet so as to move the real-time broadcast from the first subnet to the second subnet, claim 22 of the present invention is not anticipated by Zhang.

Claims 24 and 25 depend from claim 22, and should be patentable for at least those reasons recited above. Thus, the rejection of claims 22, 24 and 25 under 35 U.S.C. § 102(e) should be withdrawn.

As to claim 31, the Examiner alleges that Zhang teaches determining a number of receivers which are receiving the broadcast, presumably because in Zhang a subscriber requests membership in the multicast group of an MBone site. (See Office Action dated May 18, 2005, ¶

47). Applicants respectfully disagrees that Zhang discloses determining a number of receivers that are receiving the broadcast. Zhang discloses the number of subscribers that request membership, but Zhang fails to disclose or suggest the number of receivers that are receiving the broadcast. Zhang's report of the registration requests is not equivalent to the number being determined by receiving information from the receivers indicative of the response signals being transmitted by the receivers, as recited in claim 31 of the present invention.

Further, Zhang intercepts all queries from the IP router, and responds with reports generated from the mapping table. (Zhang, col. 15, lines 3-8). Thus, only the members that have registered their entry with the multicast address mapping table receive the broadcast, and users that have not registered with the multicast address mapping table send a registration request message. (Zhang, col. 13, lines 1-35). The corresponding entry, or request, is then stored in the mapping table, and thus the report shows the number of subscribers that request membership (Zhang, col. 15, lines 3-8), and not the number of receivers that are receiving the broadcast. Zhang's IGMP query does not indicate the total number of receivers that are receiving the broadcast, but instead only indicates if there is any member present within a specific group. (Zhang, col. 14, lines 55-62). As such, Zhang fails to disclose or suggest any technique which determines the number of receivers that receive the broadcast through a response signal from the receivers, as recited in claim 31 of the present application. In view of the complete absence of this claim limitation in Zhang, Zhang cannot anticipate or render obvious the claimed invention. Accordingly, the rejection under 35 U.S.C. § 102(e) should be withdrawn and claim 31 should be allowed.

Claim 34 is a software arrangement substantially corresponding to claim 1. The remarks relating to claim 1, set out above, are equally applicable to claim 34, and thus the rejection to claim 34 under 35 U.S.C. § 102(e) should likewise be withdrawn.

Claim 32 is a device substantially corresponding to claim 1. The remarks relating to claim 1, set out above, are equally applicable to claim 32, and thus the rejection to claim 32 under 35 U.S.C. § 102(e) should likewise be withdrawn.

Claim 36 is a software arrangement substantially corresponding to claim 22. The remarks relating to claim 22, set out above, are equally applicable to claim 36, and thus the rejection to claim 36 under 35 U.S.C. § 102(e) should likewise be withdrawn.

Claim 37 is a software arrangement substantially corresponding to claim 31. The remarks relating to claim 31, set out above, are equally applicable to claim 37, and thus the rejection to claim 37 under U.S.C. § 102(e) should likewise be withdrawn.

Claims 27-28 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,990,883 to Byrne et al. (“Byrne”). Claim 27 has been canceled, and claim 28 has been amended. Applicants respectfully traverses the rejection to claim 28.

Claim 28 recites, *inter alia*, a switching device that is switchable between a first and second state. Byrne does not disclose or suggest such a device. Instead, Byrne discloses that the user simply selects a single content entry or listing, and does not need to be concerned with the physical source that supplies the listed content. (Byrne, col. 5, lines 30-35). Byrne further discloses that the system automatically tunes the signal source to render the selected content. (Byrne, col. 5, lines 34-37). Byrne does not disclose or suggest, however, a device that is

switchable between a first and second state (for example, between analog such as AM or FM, and digital such as Internet) such that the receiver is enabled to receive the broadcasts, as recited in claim 28 of the present invention. Byrne only allows the selection of a content entry, and then automatically associates the appropriate physical signal source. (Byrne, col. 5, lines 39-41). Because Byrne does not disclose or suggest a switching device that is switchable between a first and second state, claim 28 is patentable over Byrne. Applicants respectfully request the rejection to claim 28 be withdrawn.

### **Rejections under 35 U.S.C. § 103**

Claims 3-8, 13-16, 26 and 33 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Zhang in view of U.S. Patent No. 5,892,535 to Allen (“Allen”). Applicants respectfully traverse these rejections.

Claims 3-8 and 13-16 depend from claim 1. As described above, Zhang fails to disclose or suggest association of at least one local multicast channel with at least one global multicast channel. Zhang also fails to disclose or suggest routing a broadcast from at least one global multicast channel to at least one local multicast channel to provide the broadcast to the receiver, as recited in claim 1 of the present invention. Allen does not make up for the deficiencies of Zhang. As such, claims 3-8 and 13-16, which depend from claim 1, are not rendered obvious by Zhang or Allen, either alone or in combination. Applicant respectfully requests that these rejections be withdrawn.

Claim 26 depends from claim 22. As described above, Zhang fails to disclose or suggest receiving, from the wireless receiver prior to leaving the first subnet, a request to receive the real-time broadcast in a second subnet so as to move the real-time broadcast from the first

subnet to the second subnet, as recited in claim 22 of the present invention. Allen does not make up for the deficiencies of Zhang. As such, claim 26, which depends from claim 22, is not rendered obvious by Zhang or Allen, either alone or in combination. Applicant respectfully requests that this rejection be withdrawn.

Claim 33 depends from claim 1. As described above, Zhang fails to disclose or suggest association of at least one local multicast channel with at least one global multicast channel, nor does Zhang disclose routing a broadcast from at least one global multicast channel to at least one local multicast channel to provide the broadcast to the receiver, as recited in claim 1 of the present invention. Allen does not make up for the deficiencies of Zhang. As such, claim 33, which depends from claim 1, is not rendered obvious by Zhang or Allen, either alone or in combination. Applicant respectfully requests that these rejections be withdrawn.

Claims 17-18 and 35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Allen in view of U.S. Patent No. 5,757,798 to Hamaguchi (“Hamaguchi”). Applicants respectfully traverse these rejections.

Claim 17 recites, *inter alia*, receiving a real-time broadcast including information indicative of a respective time and a duration of at least one break in the broadcast of the normal content. In other words, the present invention includes information in the broadcast of when a break is forthcoming, and the duration of the forthcoming break. Allen does not include information indicative of a respective time and a duration of at least one break in the broadcast. Instead, Allen discloses packaging ads into “breaks,” and temporally matches the breaks to “local avails.” (Allen, col. 32, lines 34-36). Allen defines “breaks” as an ordered list with a scheduled start and stop time. (Allen, col. 32, lines 29-31). Allen defines a “local avail” as a

temporal location that is indicated with a cue tone. (Allen, col. 32, lines 26-27). Allen does not disclose or suggest, however, information indicative of a respective time and duration of a break in the broadcast, as recited in claim 17.

An example of indicative information in the broadcast may include a message that a 30 second break is forthcoming in 15 seconds. Allen's use of "break" and "local avail," either alone or in combination, does not disclose this type of functionality, namely, that a break with a respective time and a duration is forthcoming. Allen instead uses a cue tone to signal when a break from the ordered list is to be played. The present invention as defined in claim 17 does not use a cue tone to signal an immediate break. Because Allen does not disclose receiving a real-time broadcast including information indicative of a respective time and a duration of at least one break in the broadcast of the normal content, as recited in claim 17, Allen does not render claim 17 obvious. Hamaguchi does not cure the deficiencies of Allen.

Claim 18 depends from claim 17, and should be patentable for those reasons recited above. As such, Applicant respectfully requests that the rejections to claims 17 and 18 be withdrawn.

Claim 35 is a software arrangement substantially corresponding to claim 17. The remarks relating to claim 17, set out above, are equally applicable to claim 35, and thus the rejection to claim 35 should likewise be withdrawn.

Claims 19-21 depend from claim 17. Allen does not disclose receiving a real-time broadcast including information indicative of a respective time and a duration of at least one break in the broadcast of the normal content, as recited in claim 17. Hamaguchi and Zhang do



not cure the deficiencies of Allen. Claims 19-21, which depend from claim 17, should be patentable for at least those reasons recited above.

Claims 29 and 30 have been amended to depend from claim 28. Byrne does not disclose a switching device that is switchable between a first and second state, as recited in claim 28. Zhang does not cure the deficiencies of Byrne. Claims 29 and 30, which depend from claim 28, should be patentable for at least those reasons recited above.


**Conclusion**

Based on the foregoing, Applicants submit that the present application is now in condition for allowance. A Notice of Allowance is respectfully requested. The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication to Deposit Account No. 02-4377.

Respectfully submitted,

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